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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,401	08/21/2001	Charles D. Royalty	7784-000304	8117
27572	7590	12/28/2005	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			ZHOU, TING	
			ART UNIT	PAPER NUMBER
			2173	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/934,401	Applicant(s) ROYALTY, CHARLES D.	
	Examiner Ting Zhou	Art Unit 2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-7, 9-17 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-7, 9-11, 17 and 20-22 is/are allowed.
- 6) ☒ Claim(s) 12-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on 26 September 2005 have been received and entered. Claims 1, 3-7, 9-17 and 20-22 as amended are pending in the application.

Allowable Subject Matter

2. Claims 1, 3-7, 9-11, 17 and 20-22 are allowed.
3. The following is an examiner's statement of reasons for allowance: The present invention teaches a method for detecting application spoofing in displays such as certified flight deck displays that allow the mixed use of a certified avionics display to display information from non-certified sources. Each of the independent claims identifies either the distinct feature of "maintaining the displaying of the certified display on the display area while simultaneously displaying the information from the non-certified source and displaying the information on the display area in front of the certified display so that the information is visible on the avionics display, at least a portion of the certified display is visible on the avionics display and the information covers a portion of the certified display that would otherwise be displayed" or the distinct feature of providing the non-certified source with a false indication of the size of the display area so that the non-certified source is not capable of addressing the entire display area. The closest prior art, McElreath U.S. Patent 6,401,013 and Doll et al. European Patent 429,387 teaches the mixed display of certified and non-certified information on an aircraft having a certified flight deck display. In the case of the McElreath reference, McElreath teaches partitioning the flight deck display in order to display both certified and non-certified

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information. In the case of the Doll reference, Doll teaches the display of non-certified information within the display of certified information. However, the prior art fails to teach displaying the information on the display area in front of the certified display so that the information is visible on the avionics display, at least a portion of the certified display is visible on the avionics display and the information covers a portion of the certified display that would otherwise be displayed and providing the non-certified source with a false indication of the size of the display area so that the non-certified source is not capable of addressing the entire display area. Thus, the prior art fails to anticipate or render the above limitations obvious.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 12-16 are rejected under 35 U.S.C. 102(e) as being anticipated by McElreath U.S. Patent 6,401,013.

Referring to claim 12, McElreath teaches a method comprising providing an avionics display that is capable of displaying information from a non-certified source and from a certified source (displaying information from a laptop computer which is a non-certified source and from on-board avionics equipment, which is a FAA certified source) (column 3, lines 28-32 and column 3, line 57- column 4, line 32); establishing rules that dictate when the avionics display can display the information from the non-certified source and when the avionics display must display information from the certified source (a menu for controlling the display of information dictates the display of information from the laptop; for example, the display can display information from the laptop PC when the display is in split screen mode, showing information from the laptop PC and the onboard FAA equipment, and the display can only display information from the certified onboard equipment during other times such as during take-offs and landings) (column 1, line 35-41 and column 3, line 56-column 4, line 30); and preventing the displaying of the non-certified information when the rules dictate that the avionics display should not display the non-certified information so that application spoofing cannot occur (splitting the integrated cockpit display so that a part of the screen, i.e. one of the split screens is for displaying

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FAA certified information, and therefore prevented from displaying information from the laptop, assuring the integrity of the displayed information and preventing corruption caused by the laptop PC; in addition, preventing the display of information from the laptop PC on the screen via shutting down the non-certified source of information, i.e. the laptop, during certain times, such as during take-offs, approaches and landings) (column 1, lines 37-41, column 4, lines 2-32).

Referring to claim 13, McElreath teaches reviewing applicable government regulations that govern the operation of an aircraft (FAA certified information) and determining when the regulations require the avionics display to display a certified display (a menu for controlling the integrated display can be used to display a certified display according to factors such as government, or FAA regulations) (column 4, lines 1-31).

Referring to claim 14, McElreath teaches identifying periods of operation of an aircraft when an operator of the aircraft should not be allowed to access the non-certified information (such as during take-offs and landings) (column 1, lines 35-40).

Referring to claim 15, McElreath teaches a computer processor performing the steps of preventing the displaying of the non-certified information from the non-certified source (splitting the integrated cockpit display so that a part of the screen, i.e. one of the split screens is for displaying FAA certified information, and therefore prevented from displaying information from the laptop, assuring the integrity of the displayed information and preventing corruption caused by the laptop PC; in addition, preventing the display of information from the laptop PC on the screen via shutting down the non-certified source of information, i.e. the laptop, during certain times, such as during take-offs, approaches and landings) (column 1, lines 37-41, column 4, lines 2-32).

Referring to claim 16, McElreath teaches terminating a data connection between the avionics display and the non-certified source of information so that the avionics display does not receive information from the non-certified source (controlling the display of information on the screen via shutting down the non-certified source of information, i.e. the laptop during certain times, such as during take-offs, approaches and landings) (column 1, lines 37-41, column 4, lines 2-32 and column 6, lines 13-45).

Response to Arguments

6. Applicant's arguments filed 26 September 2005 have been fully considered but they are not persuasive.

7. The applicant argues that McElreath's requirement for shutting down a laptop PC is completely unrelated to establishing rules that dictate when a display can display information from a non-certified source and when it must display information from a certified source. The examiner respectfully disagrees. McElreath teaches that the on-board avionics display can display information from the non-certified source upon the achievement of some criteria, for example, upon establishment of the criteria, or rule that a split screen is to be used for displaying information from the laptop PC and the on-board equipment, non-certified information from the non-certified laptop PC source can be displayed, as recited in column 3, line 56-column 4, line 31. In addition, McElreath teaches a split screen arrangement in which part of the screen is used to display information from the certified source and part of the screen is used to display information from the non-certified laptop PC source; therefore, upon establishing the rule, or

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meeting the criteria that a split screen display is used, only part of the screen can be used to display information from the non-certified source, the other part of the avionics display must display only information from the certified source, since the information are split, as recited in column 3, line 56-column 4, line 31; furthermore, McElreath also teaches a rule that requires the non-certified laptop PC source to be shut down during certain times, such as during take-offs and landings, as recited in column 1, lines 35-41, thereby allowing only the display of information from the on-board avionics equipment on the avionics display; in other words, since the laptop PC is turned off, the avionics display must only be allowed to display information from the certified on-board equipment. The applicant argues that the non-certified source is not limited to an on-board PC or component that would be required to be shut down during certain periods of flight operation. However, the examiner respectfully argues that the language of the claims, as presently recited, do not define nor limit the non-certified source to be a specific device; McElreath explicitly states that laptop PCs are non-FAA certified computers, as recited in column 3, lines 56-60; therefore, the laptop PC that is required to be shut down during certain periods of flight operation taught by McElreath is a non-certified source.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ting Zhou whose telephone number is (571) 272-4058. The examiner can normally be reached on Monday - Friday 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached at (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TZ


CAO (KEVIN) NGUYEN
PRIMARY EXAMINER